

In the claims:

1. (Currently Amended) A peptide inhibitor of glycogen synthase kinase-3 (GSK-3), comprising a polypeptide having between 7 and 20 amino acid residues and the amino acid sequence XZXXXS(p)X, wherein:

S(p)=phosphorylated serine or threonine,

X=any amino acid, whereas at least one of X is a proline residue, and

Z=any amino acid except serine or threonine,

said amino acid sequence being a part of ~~a known substrate of the~~ substrate heat shock factor-1 (HSF-1) protein containing a single SXXXS(p) recognition motif, wherein S is serine ~~or threonine~~ and S(p) is a phosphorylated serine ~~or threonine~~, in which S is replaced by said Z,

with the proviso that the polypeptide does not contain two or more SXXXS motifs, wherein S=serine, upstream of the S(p) residue,

said polypeptide being capable of inhibiting the enzymatic activity of GSK-3.

2. (Original) A peptide inhibitor in accordance with claim 1, wherein said polypeptide has a length of from 10 to 13 amino acids.

3 - 5. (Canceled)

6. (Currently Amended) A peptide inhibitor in accordance with claim ~~5~~1, wherein said polypeptide has a length of at least 8 amino acid residues.

7. (Original) A peptide inhibitor in accordance with claim 1, having at least three amino acid residues upstream of the Z amino acid residue.

8. (Previously Presented) A peptide inhibitor in accordance with claim 7, wherein an amino acid residue at the position three residues upstream of Z is an amino acid residue other than a glutamic acid residue.

9. (Original) A pharmaceutical composition, identified for use in the treatment of a biological condition mediated by GSK-3, comprising the peptide inhibitor of claim 1 in a pharmaceutically acceptable excipient.